United States Mint, Philadelphia, Penn.,

MELTER AND REFINER'S DEPARTMENT,

1

3rd April, 1879.

Hon. A. Loudon Snowden

Superintendent

Sir.

Acting under permission of the late Superintendent, agreeably to my favorable opinion of Mr A. E. Outerbridge's project for catching volatilized metal, the latter conceived & put into operation a contrivance, to effect this object, which worked fairly from the first, and after some improvements, suggested by further experience, operated very successfully. I reported favorably on it, merely suggesting a line of improvement in order to adapt it more perfectly to our own use. My Report must be on file, bearing date 3. May, 1878. The heavy press of business in the Mint, subsequent to my Report, prevented Mr Outerbridge from testing further improvements in his process, & apparatus.

Referring to Mr Outerbridge's letter of 31st Ult. with quotations

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United States Mint, Philadelphia, Penn.,

MELTER AND REFINER'S DEPARTMENT,

(2)

3 April, 1879.

quotations from a letter of the Assayer in charge of the Assay Office, Helena, Montana, – it is evident that a process is imperatively required to prevent the diffusion of the noxious vapors of mercury (possibly arsenic, &c. I.C.B.) through the air of the melting room, where deposits of gold and silver are being melted.

I may further add that volatile matters, rising from melted gold or silver, invariably entangle more or less of the precious metal, so that the invisible cloudy volume is interpenetrated with invisible particles of gold or silver, only known by sometimes collecting portions of them, & by the loss on winding up accounts.

Because I think that Mr Outerbridge's process & apparatus are peculiarly well adapted to catch the volatilizing matters, when melting gold & silver, thereby avoiding risk to health or life, & saving precious metal, I confidently recommend the use of his system in the Assay Office, Helena, Montana.

Respectfully yours

Ja C Booth M&R

RG104 E-1 Box 116

106 1/2

U. S. Mint, Melter and Refiner's Department,

PHILADELPHIA, PENN.,

April 3rd, 1879.

J. C. Booth

Melter and Refiner.

To A. L. Snowden

Relative to A. E. Outerbridge's project for catching volatile metals. Recommend its use at the Helena Assay Office.

No. of Enclosures, —

Rec'd Apr 3/79

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[Abstract:] Relative to A.E. Outerbridge's project for catching volatilized metal. 106 ½

1)

United States Mint, Philadelphia, Penn.,
Melter and Refiner's Department,
April 3, 1879

Hon. A. Loudon Snowden
Superintendent

Sir,

Acting under permission of the late superintendent, agreeably to my favorable opinion of Mr. A.E. Outerbridge's project for catching volatilized metal, the latter conceived & put into operation a contrivance, to effect this object, which worked fairly from the first, and after some improvements, suggested by further experience, operated very successfully. I reported favorably on it, merely suggesting a line of improvement in order to adapt it more perfectly to our own use. My Report must be on file, bearing date 3 May 1878. The heavy press of business in the Mint, subsequent to my Report, prevented Mr. Outerbridge from testing further improvements in his process & apparatus.

Referring to Mr. Outerbridge's letter of 31st Ult. with quotations from a letter of the Assayer in charge of the Assay Office, Helena, Montana, - it is evident that a process is imperatively required to prevent the diffusion of the noxious vapors of mercury (possibly arsenic &c. J.C.B.) through the air of the melting room, where deposits of gold and silver are being melted. I may further add that volatile matters, rising from melted Gold or Silver, invariably entangle more or less of the precious metal, so that the invisible cloudy volume is interpenetrated with invisible particles of gold or silver, only known by sometimes collecting portions of them, & by the loss on winding up accounts.

Because I think that Mr. Outerbridge's process & apparatus are peculiarly well adopted to catch the volatilizing matters, when melting gold & silver, thereby avoiding risk to health or life, & saving precious metal, I confidently recommend the use of his system in the Assay Office, Helena, Montana.

Respectfully yours,
Jas. C. Booth
M & R